

aga gag gaa gac ggc tta gcc aaa agc tct cgc aat gta tac tta aca 576
 Arg Glu Glu Asp Gly Leu Ala Lys Ser Ser Arg Asn Val Tyr Leu Thr
 180 185 190

gct gag gaa aga aaa gaa gcg cct aag ctg tat cgg gcc ctt caa aca 624
 Ala Glu Glu Arg Lys Glu Ala Pro Lys Leu Tyr Arg Ala Leu Gln Thr
 195 200 205

agt gcg gaa ctt gtc caa gcc ggt gaa aga gat cct gaa gcg gtg ata 672
 Ser Ala Glu Leu Val Gln Ala Gly Glu Arg Asp Pro Glu Ala Val Ile
 210 215 220

aaa gct gca aaa gat atc att gaa acg act agc gga acc ata gac tat 720
 Lys Ala Ala Lys Asp Ile Ile Glu Thr Thr Ser Gly Thr Ile Asp Tyr
 225 230 235 240

gta gag ctt tat tcc tat ccg gaa ctc gag cct gtg aat gaa att gct 768
 Val Glu Leu Tyr Ser Tyr Pro Glu Leu Glu Pro Val Asn Glu Ile Ala
 245 250 255

gga aag atg att ctc gct gtt gca gtt gct ttt tca aaa gcg cgt tta 816
 Gly Lys Met Ile Leu Ala Val Ala Val Ala Phe Ser Lys Ala Arg Leu
 260 265 270

ata gat aat atc att att gat att cga gaa atg gag aga ata 858
 Ile Asp Asn Ile Ile Ile Asp Ile Arg Glu Met Glu Arg Ile
 275 280 285

<210> 26
 <211> 286
 <212> PRT
 <213> Bacillus subtilis

<400> 26
 Met Arg Gln Ile Thr Asp Ile Ser Gln Leu Lys Glu Ala Ile Lys Gln
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Tyr His Ser Glu Gly Lys Ser Ile Gly Phe Val Pro Thr Met Gly Phe
 20 25 30

Leu His Glu Gly His Leu Thr Leu Ala Asp Lys Ala Arg Gln Glu Asn
 35 40 45

Asp Ala Val Ile Met Ser Ile Phe Val Asn Pro Ala Gln Phe Gly Pro
 50 55 60

Asn Glu Asp Phe Glu Ala Tyr Pro Arg Asp Ile Glu Arg Asp Ala Ala
 65 70 75 80

Leu Ala Glu Asn Ala Gly Val Asp Ile Leu Phe Thr Pro Asp Ala His
 85 90 95

Asp Met Tyr Pro Gly Glu Lys Asn Val Thr Ile His Val Glu Arg Arg
 100 105 110

Thr Asp Val Leu Cys Gly Arg Ser Arg Glu Gly His Phe Asp Gly Val
 115 120 125

Ala Ile Val Leu Thr Lys Leu Phe Asn Leu Val Lys Pro Thr Arg Ala

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130 135 140

Tyr Phe Gly Leu Lys Asp Ala Gln Gln Val Ala Val Val Asp Gly Leu
145 150 155 160

Ile Ser Asp Phe Phe Met Asp Ile Glu Leu Val Pro Val Asp Thr Val
165 170 175

Arg Glu Glu Asp Gly Leu Ala Lys Ser Ser Arg Asn Val Tyr Leu Thr
180 185 190

Ala Glu Glu Arg Lys Glu Ala Pro Lys Leu Tyr Arg Ala Leu Gln Thr
195 200 205

Ser Ala Glu Leu Val Gln Ala Gly Glu Arg Asp Pro Glu Ala Val Ile
210 215 220

Lys Ala Ala Lys Asp Ile Ile Glu Thr Thr Ser Gly Thr Ile Asp Tyr
225 230 235 240

Val Glu Leu Tyr Ser Tyr Pro Glu Leu Glu Pro Val Asn Glu Ile Ala
245 250 255

Gly Lys Met Ile Leu Ala Val Ala Val Ala Phe Ser Lys Ala Arg Leu
260 265 270

Ile Asp Asn Ile Ile Ile Asp Ile Arg Glu Met Glu Arg Ile
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<212> DNA
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<220>
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<400> 27

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1 5 10 15

gaa gca aac ctg aac tat gtg gga agc att aca att gat gaa gat ctc 96
Glu Ala Asn Leu Asn Tyr Val Gly Ser Ile Thr Ile Asp Glu Asp Leu
20 25 30

att gat gct gtg gga atg ctt cct aat gaa aaa gta caa att gtg aat 144
Ile Asp Ala Val Gly Met Leu Pro Asn Glu Lys Val Gln Ile Val Asn
35 40 45

aat aat aat gga gca cgt ctt gaa acg tat att att cct ggt aaa cgg 192
Asn Asn Asn Gly Ala Arg Leu Glu Thr Tyr Ile Ile Pro Gly Lys Arg
50 55 60

gga agc ggc gtc ata tgc tta aac ggt gca gcc gca cgc ctt gtg cag 240
Gly Ser Gly Val Ile Cys Leu Asn Gly Ala Ala Ala Arg Leu Val Gln
65 70 75 80

gaa gga gat aag gtc att att att tcc tac aaa atg atg tct gat caa 288

056560.000001

Glu Gly Asp Lys Val Ile Ile Ile Ser Tyr Lys Met Met Ser Asp Gln
 85 90 95

gaa gcg gca agc cat gag ccg aaa gtg gct gtt ctg aat gat caa aac 336
 Glu Ala Ala Ser His Glu Pro Lys Val Ala Val Leu Asn Asp Gln Asn
 100 105 110

aaa att gaa caa atg ctg ggg aac gaa cca gcc cgt aca att ttg 381
 Lys Ile Glu Gln Met Leu Gly Asn Glu Pro Ala Arg Thr Ile Leu
 115 120 125

<210> 28
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 <212> PRT
 <213> Bacillus subtilis

<400> 28
 Met Tyr Arg Thr Met Met Ser Gly Lys Leu His Arg Ala Thr Val Thr
 1 5 10 15

Glu Ala Asn Leu Asn Tyr Val Gly Ser Ile Thr Ile Asp Glu Asp Leu
 20 25 30

Ile Asp Ala Val Gly Met Leu Pro Asn Glu Lys Val Gln Ile Val Asn
 35 40 45

Asn Asn Asn Gly Ala Arg Leu Glu Thr Tyr Ile Ile Pro Gly Lys Arg
 50 55 60

Gly Ser Gly Val Ile Cys Leu Asn Gly Ala Ala Ala Arg Leu Val Gln
 65 70 75 80

Glu Gly Asp Lys Val Ile Ile Ile Ser Tyr Lys Met Met Ser Asp Gln
 85 90 95

Glu Ala Ala Ser His Glu Pro Lys Val Ala Val Leu Asn Asp Gln Asn
 100 105 110

Lys Ile Glu Gln Met Leu Gly Asn Glu Pro Ala Arg Thr Ile Leu
 115 120 125

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 <212> DNA
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 1 5 10 15

tat tat ttg tca ctt tat cac gac gtg act gtt gtg acg agg cgg caa 96
 Tyr Tyr Leu Ser Leu Tyr His Asp Val Thr Val Val Thr Arg Arg Gln
 20 25 30

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